



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/616,472	07/08/2003	Keith A. McCrea	16510-017	9617
23526	7590	03/28/2006	EXAMINER	
NORRIS MCLAUGHLIN & MARCUS, P.A. P O BOX 1018 SOMERVILLE, NJ 08876			RAEVIS, ROBERT R	
			ART UNIT	PAPER NUMBER
			2856	

DATE MAILED: 03/28/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/616,472

Applicant(s)

MCCREA, KEITH A.

Examiner

Robert R. Raevis

Art Unit

2856

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 07 February 2006.
- 2a) ☐ This action is FINAL.
- 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
 - 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 5 and 17-20 is/are allowed.
- 6) ☒ Claim(s) 1-4, 6-9 and 11-16 is/are rejected.
- 7) ☒ Claim(s) 10 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
 - Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 - Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☐ All b) ☐ Some * c) ☐ None of:
 - 1. ☐ Certified copies of the priority documents have been received.
 - 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 - 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Claims 1 to 4,6-9,11,12,13,14,15,16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Popovic et al, in view of White et al or Tait, and further in view of either Nakamura, Izawa et al or Nonma et al.

Popovic et al teach (Fig. 1) a device, including: a capacitive probe 18 mounted on a floating device 29, and data acquisition computer 22. The probe is employed to measure/determine "distance" (col. 12, lines 9-11.

Popovic does not clearly describe the assembly (col. 9, lines 54-56) that moves the probe, and does not call the roller a work roller.

As to claims 1,2,3,8,13,14, it would have been obvious to use a rail to move Popovic's sensor along the axial direction to provide for the "new scan line" (col. 9, line 57) because either White et al teach use of motorized threaded rail to effectively drive a sensor along a roller, or Tait teaches use of a rail 20 to effectively support a sensor as it is displaced across a roller of interest. In addition, Popovic's roller may be called a work roller, as either (1) Honma et al (Para 0010) express that rollers in the printing art provide "work", (2) Izawa et al (col. 5, lines 36-43) express that rollers in the printing industry express that rollers provide work, or (3) Nakamura teaches (col. 10, last 5 lines) that rollers in the printing industry cooperatively work. Note that the phrase "work roller" in the claims does not provide for any structural limitations that distinguish over any rollers that carry out work. In addition, Applicant's written specification simply states that his work roller is (somehow) "used in the manufacture of sheet steel and other

Art Unit: 2856

sheet metal products", and that the disclosed use is not employed in the structure of the claimed apparatus (or in the "work roll).

As to claims 4, 9, note that the recorder 42 displays, as well as White's display 64, allowing for an operator to immediately recognize results.

As to claims 6,7, the axis of the probe must follow the axis of the roll for correlation of results of sensor measurement with location of those measurements.

As to claims 11 and 12, measurements may be quickly made to provide for averaging, allowing for reduced error in measurement.

As to claims 15,16, Popovic's capacitive sensor is as analog as Applicant's sensor of claim 3.

Claims 1 to 4,6-9,11,12,13,14,15,16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hashimoto et al, in view of Popovic et al, in view of White et al or Tait, and further in view of either Nakamura, Izawa et al or Nonma et al.

Hashimoto et al teach (Para 163,165) use of a ink jet printer in the process of the manufacture of sheet steel, but does not describe any particulars of the ink jet printer.

Popovic et al teach (Fig. 1) a device, including: a capacitive probe 18 mounted on a floating device 29, and data acquisition computer 22. The probe is employed to measure/determine "distance" (col. 12, lines 9-11. The device is used "for ink jet printing" (col. 1, line 12).

Popovic does not clearly describe the assembly (col. 9, lines 54-56) that moves the probe, and does not call the roller a work roller.

Art Unit: 2856

As to claims 1,2,3,8,13,14, I would have been obvious to employ Popovi's ink jet printer in Hashimoto as Hashimoto's requirement of an ink jet printer is suggestive of use of any known (Popovic's) printer. In addition, it would have been obvious to use a rail to move Popovic's sensor along the axial direction to provide for the "new scan line" (col. 9, line 57) because either White et al teach use of motorized threaded rail to effectively drive a sensor along a roller, or Tait teaches use of a rail 20 to effectively support a sensor as it is displaced across a roller of interest. In addition, Popovic's roller may be called a work roller, as either (1) Honma et al (Para 0010) express that rollers in the printing art provide "work", (2) Izawa et al (col. 5, lines 36-43) express that rollers in the printing industry express that rollers provide work, or (3) Nakamura teaches (col. 10, last 5 lines) that rollers in the printing industry cooperatively work.

As to claims 4, 9, note that the recorder 42 displays, as well as White's display 64, allowing for an operator to immediately recognize results.

As to claims 6,7, the axis of the probe must follow the axis of the roll for correlation of results of sensor measurement with location of those measurements.

As to claims 11 and 12, measurements may be quickly made to provide for averaging, allowing for reduced error in measurement.

As to claims 15,16, Popovic's capacitive sensor is as analog as Applicant's sensor of claim 3.

As to Applicant's **Remarks** filed 2-7-06, please consider the following:

As to p. 13, lines 6-7; the rejected claims are not limited to "manufacture of sheet steel and other sheet metal products" as argued. Claim 1 is directed to capacitance or inductance sensor apparatus that measures distance from a roll, and collected shape/surface characteristics. The preamble ("non-contact apparatus") announces that the claim is directed to an apparatus. The phrase "used in the manufacture of sheet steel and other sheet metal products" (italics added) is *expressly* a statement of intended use for the "non-contact apparatus". The preamble is not directed to a -- An apparatus for manufacturing sheet steel or sheet products --, as seemingly argued. As an analogy, please recognize that the claim directed to a block of marble for use in the creation of an artistic statue is not directed to a completed statue. That block or marble remains a block, until it is cut/chiseled. Again, the phrase "used in the manufacture of sheet steel and other sheet metal products" does not add to *the structure* of claim 1. In addition, the same quoted phrase is a statement of intended use in method claim 8. Please note that the method claims are devoid of any step that provides sheet steel or other sheet metal products. The substantive limitations do call for "measuring distance from the surface of the roll" (claim 8), and that limitation is addressed in the outstanding Office action. When one looks for how the "sheet steel and other sheet metal products" are related to the steps of claim 8, one sees that the steps of the claimed method does not employ "sheet steel and other sheet metal products". In fact, it's unclear how the "used in the manufacture of sheet steel and other sheet metal products" passage even structurally defines the "work roll" (line 1).

Art Unit: 2856

Presently, the preamble suggests that the sheet steel and other sheet metal products are something that is only "used".

Claim 10 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Robert R. Raevis whose telephone number is 571-272-2204. The examiner can normally be reached on Monday to Friday from 7am to 4pm. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Robert R. Raevis

RAEVI